

SEQUENCE LISTING

Goff, Arthur Ehrlich, Lorna Cohen, Stanley N.

- <120> TSG101 AS INHIBITOR OF HIV PRODUCTION
- <130> 70017.17USC1
- <140> US 10/666,997
- <141> 2003-09-18
- <150> PCT/US02/15965
- <151> 2002-05-21
- <150> US 60/292,761
- <151> 2001-05-21
- <160> 38
- <170> PatentIn version 3.3
- <210> 1
- <211> 391
- <212> PRT
- <213> Mouse
- <400> 1

Met Ala Val Ser Glu Ser Gln Leu Lys Lys Met Met Ser Lys Tyr Lys 1 5 10 15

Tyr Arg Asp Leu Thr Val Arg Gln Thr Val Asn Val Ile Ala Met Tyr 20 25 30

Lys Asp Leu Lys Pro Val Leu Asp Ser Tyr Val Phe Asn Asp Gly Ser 35 40 45

Ser Arg Glu Leu Val Asn Leu Thr Gly Thr Ile Pro Val Arg Tyr Arg 50 55 60

Gly Asn Ile Tyr Asn Ile Pro Ile Cys Leu Trp Leu Leu Asp Thr Tyr 65 70 75 80

Pro Tyr Asn Pro Pro Ile Cys Phe Val Lys Pro Thr Ser Ser Met Thr 85 90 95

Ile Lys Thr Gly Lys His Val Asp Ala Asn Gly Lys Ile Tyr Leu Pro
100 105 110

Tyr Leu His Asp Trp Lys His Pro Arg Ser Glu Leu Leu Glu Leu Ile

115 120 125

Gln	Ile 130	Met	Ile	Val	Ile	Phe 135	Gly	Glu	Glu	Pro	Pro 140	Val	Phe	Ser	Arg
Pro 145	Thr	Val	Ser	Ala	Ser 150	Tyr	Pro	Pro	Tyr	Thr 155	Ala	Thr	Gly	Pro	Pro 160
Asn	Thr	Ser	Tyr	Met 165	Pro	Gly	Met	Pro	Ser 170	Gly	Ile	Ser	Ala	Tyr 175	Pro
Ser	Gly	Tyr	Pro 180	Pro	Asn	Pro	Ser	Gly 185	Tyr	Pro	Gly	Cys	Pro 190	Tyr	Pro
Pro	Ala	Gly 195	Pro	Tyr	Pro	Ala	Thr 200	Thr	Ser	Ser	Gln	Tyr 205	Pro	Ser	Gln
Pro	Pro 210	Val	Thr	Thr	Val	Gly 215	Pro	Ser	Arg	Asp	Gly 220	Thr	Ile	Ser	Glu
Asp 225	Thr	Ile	Arg	Ala	Ser 230	Leu	Ile	Ser	Ala	Val 235	Ser	Asp	Lys	Leu	Arg 240
Trp	Arg	Met	Lys	Glu 245	Glu	Met	Asp	Gly	Ala 250	Gln	Ala	Glu	Leu	Asn 255	Ala
Leu	Lys	Arg	Thr 260	Glu	Glu	Asp	Leu	Lys 265	Lys	Gly	His	Gln	Lys 270	Leu	Glu
Glu	Met	Val 275	Thr	Arg	Leu	Asp	Gln 280	Glu	Val	Ala	Glu	Val 285	Asp	Lys	Asr
Ile	Glu 290	Leu	Leu	Lys	Lys	Lys 295	Asp	Glu	Glu	Leu	Ser 300	Ser	Ala	Leu	Glu
Lys 305	Met	Glu	Asn	Gln	Ser 310	Glu	Asn	Asn	Asp	Ile 315	Asp	Glu	Val	Ile	Ile 320
Pro	Thr	Ala	Pro	Leu 325	Tyr	Lys	Gln	Ile	Leu 330	Asn	Leu	Tyr	Ala	Glu 335	Glu
Asn	Ala	Ile	Glu 340	Asp	Thr	Ile	Phe	Tyr 345	Leu	Gly	Glu	Ala	Leu 350	Arg	Arg

Gly Val Ile Asp Leu Asp Val Phe Leu Lys His Val Arg Leu Leu Ser

355 360 365

Arg Lys Gln Phe Gln Leu Arg Ala Leu Met Gln Lys Ala Arg Lys Thr 370 375 380

Ala Gly Leu Ser Asp Leu Tyr 385 390

<210> 2

<211> 390

<212> PRT

<213> Human

<400> 2

Met Ala Val Ser Glu Ser Gln Leu Lys Lys Met Val Ser Lys Tyr Lys 1 5 10 15

Tyr Arg Asp Leu Thr Val Arg Glu Thr Val Asn Val Ile Thr Leu Tyr 20 25 30

Lys Asp Leu Lys Pro Val Leu Asp Ser Tyr Val Phe Asn Asp Gly Ser 35 40 45

Ser Arg Glu Leu Met Asn Leu Thr Gly Thr Ile Pro Val Pro Tyr Arg 50 55 60

Gly Asn Thr Tyr Asn Ile Pro Ile Cys Leu Trp Leu Leu Asp Thr Tyr 65 70 75 80

Pro Tyr Asn Pro Pro Ile Cys Phe Val Lys Pro Thr Ser Ser Met Thr 85 90 95

Ile Lys Thr Gly Lys His Val Asp Ala Asn Gly Lys Ile Tyr Leu Pro
100 105 110

Tyr Leu His Glu Trp Lys His Pro Gln Ser Asp Leu Leu Gly Leu Ile 115 120 125

Gln Val Met Ile Val Val Phe Gly Asp Glu Pro Pro Val Phe Ser Arg 130 135 140

Pro Ile Ser Ala Ser Tyr Pro Pro Tyr Gln Ala Thr Gly Pro Pro Asn 145 150 155 160

Thr Ser Tyr Met Pro Gly Met Pro Gly Gly Ile Ser Pro Tyr Pro Ser 165 170 175

Gly Tyr Pro Pro Asn Pro Ser Gly Tyr Pro Gly Cys Pro Tyr Pro Pro 180 185 190

Gly Gly Pro Tyr Pro Ala Thr Thr Ser Ser Gln Tyr Pro Ser Gln Pro 195 200 205

Pro Val Thr Thr Val Gly Pro Ser Arg Asp Gly Thr Ile Ser Glu Asp 210 215 220

Thr Ile Arg Ala Ser Leu Ile Ser Ala Val Ser Asp Lys Leu Arg Trp 225 230 235 240

Arg Met Lys Glu Glu Met Asp Arg Ala Gln Ala Glu Leu Asn Ala Leu 245 250 255

Lys Arg Thr Glu Glu Asp Leu Lys Lys Gly His Gln Lys Leu Glu Glu 260 265 270

Met Val Thr Arg Leu Asp Gln Glu Val Ala Glu Val Asp Lys Asn Ile 275 280 285

Glu Leu Leu Lys Lys Lys Asp Glu Glu Leu Ser Ser Ala Leu Glu Lys 290 295 300

Met Glu Asn Gln Ser Glu Asn Asn Asp Ile Asp Glu Val Ile Ile Pro 305 310 315

Thr Ala Pro Leu Tyr Lys Gln Ile Leu Asn Leu Tyr Ala Glu Glu Asn 325 330 335

Ala Ile Glu Asp Thr Ile Phe Tyr Leu Gly Glu Ala Leu Arg Arg Gly 340 345 350

Val Ile Asp Leu Asp Val Phe Leu Lys His Val Arg Leu Leu Ser Arg 355 360 365

Lys Gln Phe Gln Leu Arg Ala Leu Met Gln Lys Ala Arg Lys Thr Ala 370 380

Gly Leu Ser Asp Leu Tyr 385 390

<210> 3 <211> 5

```
<212> PRT
<213> HIV 1
<400> 3
Pro Thr Ala Pro Pro
<210> 4
<211> 15
<212> PRT
<213> HIV 1
<400> 4
Ala Leu Gln Ser Arg Pro Glu Pro Thr Ala Pro Pro Glu Glu Ser
<210> 5
<211> 35
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 5
ggctagaagg atccggatgg gtgcgagagc gtcag
                                                                        35
<210> 6
<211> 26
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 6
gaagatctat tagaagttta aagtgc
                                                                        26
<210> 7
<211> 26
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer
<400> 7
gaagatctca ctacaaaact cttgcc
                                                                        26
<210> 8
<211> 30
<212> DNA
```

<213> Artificial Sequence

<220> <223>	Primer	
<400> ggaaga	8 toto cootatagtg cagaacatoo	30
<210><211><211><212><213>		
<220> <223>	Primer	
<400> cgggate	9 cctt ccctggcctt ccc	23
<210><211><211><212><213>		
<220> <223>	Primer	
<400> gggaag	10 atct ggccttcc	18
<211> <212>		
<220> <223>	Primer	
<400> gaagat	11 ctat tagaagttta aagtgc	26
<210><211><211><212><213>	12 32 DNA Artificial Sequence	
<220> <223>	Primer	
<400> cagage	12 agac cagagtttct tcagagcaga cc	32
<210><211><211><212><213>	13 30 DNA Artificial Sequence	

<220> <223>	Primer	
<400>	13	
	igac cagaggaaga gagcttcagg	30
<210>	14	
<211>	19	
<212>		
<213>	Artificial Sequence	
<220>		
<223>	Primer	
<400>	14	
ccctca	agag ccaggagcc	19
.010-	15	
<210><211>	15	
<212>		
	Artificial Sequence	
<220>	Parkers	
<223>	Primer	
<400>	15	2.2
gccgata	agac agggaactgt atc	23
-210-	16	
<210> <211>	16 31	
<212>		
	Artificial Sequence	
<220>	Drimor	
<223>	Primer	
<400>	16	
ccgatag	gaca aggaaaacga cccctcgtca c	31
<210>	17	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
	Primer	
<400>	17	
	ctat atgtagtata tag	23
<210>	18	
<211>	17	
<212>		
<213>	Artificial Sequence	

<220> <223>	Primer	
	18 aggc aacagcc	17
<212>	19 32 DNA Artificial Sequence	
<220> <223>	Primer	
<400> cagage	19 caac agccgcagca tttcttcaga gc	32
	20 24 DNA Artificial Sequence	
<220> <223>	Primer	
<400> gaattc	20 atgg cggtgtcgga gagc	24
<212>	21 24 DNA Artificial Sequence	
<220> <223>	Primer	
<400> gtcgac	21 tcag tagaggtcac tgag	24
<210><211><211><212><213>	22 24 DNA Artificial Sequence	
<220> <223>	Primer	
<400> gtcgac	22 tcat gcctggtatg gcgg	24
<210><211><212><212><213>	23 27 DNA Artificial Sequence	

<220> <223>	Primer	
<400> gtcgac	23 tcag ggaccaacag tggtcac	27
<210><211><211><212><213>		
<220> <223>	Primer	
<400> gtcgac	24 tcag ttttcagact gattttcc	28
<210><211><211><212><213>		
<220> <223>	Primer	
<400> gaattc	25 cete cagtettete tegtee	26
<210><211><211><212><213>		
<220> <223>	Primer	
<400> gaattc	26 cgga tgaaggagga aatggatcg	29
<210><211><212><212><213>	27 33 DNA Artificial Sequence	
<220> <223>	Primer	
<400> gaattc	27 aatg atatcgatga agttatcatt ccc	33
<210><211><212><212><213>	28 29 DNA Artificial Sequence	

<220> <223>	Primer	
<400> gttgate	28 gcaa atggggcgat atatettee	29
<210><211><212><212><213>		
<220> <223>	Primer	
<400> aatggg	29 aaga tatggcttcc ttatctac	28
<210><211><211><212><213>	33	
<220> <223>	Primer	
	30 atat atcttcctgc tctacatgaa tgg	33
<210><211><211><212><213>	30	
<220> <223>	Primer	
<400> ccttate	31 ctac atgaagcgaa acacccacag	3 0
<210><211><211><212><213>	32 28 DNA Artificial Sequence	
<220> <223>	Primer	
<400> ctacat	32 gaat gggcacaccc acagtcag	28
<210><211><212><212><213>	33 21 DNA Artificial Sequence	

<220> <223>	Primer	
<400> ggatcca	33 atgg tgtccaagta c	21
<210><211><211><212><213>		
<220> <223>	Primer	
<400> ggatcc	34 tcag tagaggtcac tgag	24
<210><211><211><212><213>	35 39 DNA Artificial Sequence	
<220> <223>	Primer	
<400> ggaaga	35 totg goottootac aagggaaggo cagggaatt	39
<210><211><211><212><213>		
<220> <223>	Primer	
<400> ccatgta	36 attg atagataact atgtctg	27
<210><211><212><212><213>	37 39 DNA Artificial Sequence	
<220> <223>	Primer	
<400> ggaaga	37 totg goottootac aagggaaggo cagggaatt	39
<210><211><211><212><213>	38 27 DNA Artificial Sequence	

```
<220>
<223> Primer

<400> 38
ccatgtattg atagataact atgtctg
```